

State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

Region INTENSOR 

USGS Quad NULATO A-4

Anadromous Water Catalog Number of Waterway 334-30-11000-2532-3551-4101-5301

Name of Waterway ILLINOIS CREEK ☒ USGS Name ☐ Local Name

☒ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination # <u>97 040</u>	<u>[Signature]</u> Regional Supervisor <u>GILLET</u> Date <u>12-5-96</u>
Revision Year: <u>97</u>	<u>[Signature]</u> AWC Project Biologist Date <u>4/25/97</u>
Revision to: Atlas <input checked="" type="checkbox"/> Catalog <input type="checkbox"/>	Date <u>12/3/97</u>
Both <input type="checkbox"/>	
Revision Code: <u>B-2</u>	Drafted <input type="checkbox"/> Date <u>12/3/97</u>

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
<u>COHO SALMON</u>	<u>10/2-4/95</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
<u>COHO SALMON</u>	<u>10/9/96</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments:

ATTACHED: TWO TRIP REPORTS BY WINTERS

ALASKA DEPT. OF
FISH & GAME

Name of Observer (please print)

Date: 12/5/96

Signature: [Signature]

Address: 1300 COLLEGE ROAD
FAIRBANKS, AK 99709

DEC 23 1996

REGION II
HABITAT AND RESTORATION
DIVISION

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870

Signature of Area Biologist: [Signature]

12.05.96

Revision 11/96

MEMORANDUM

State of Alaska

To: Alvin G. Ott
Regional Supervisor
Habitat and Restoration Division
Department of Fish and Game

Date: October 5, 1995

File No:

Telephone Number: 459-7279

From: Jack Winters *JW*
Habitat Biologist
Habitat and Restoration Division
Department of Fish and Game

Subject: Illinois Creek
Sampling, Oct. 2-4, 1995

From October 2 through 4, 1995, I conducted fish sampling at the Illinois Creek mine. The main objectives of this sampling were to document the presence and number of adult coho salmon in Illinois Creek, to collect adult coho salmon from Illinois Creek for possible metals analyses, and to make general observations of the mine activities. Minor objectives were to obtain latitude and longitude for our summer sampling locations and to trap juvenile coho salmon upstream of the Illinois Creek bridge to look at possible changes in distribution of these fish from summer to late fall.

Adult coho salmon were not abundant in Illinois Creek this year. On October 2, I counted 11 adult cohos in the stream. Five adults were upstream of the bridge and six were downstream. The fish upstream of the bridge were about 60 m (1 fish), 170 m (1 fish), and 350 m (3 fish) upstream (distance measured point to point). The farthest upstream adults were about 100 m farther upstream than were chum salmon observed in late July. The fish downstream of the bridge were about 40 m (3 fish), 180 m (1 fish), 190 m (1 fish), and 310 m (1 fish) downstream. I also walked the section of Illinois Creek we sampled in July surrounding the plywood bridge about 1 km downstream of the main bridge. I did not see any adult salmon in this reach on October 2.

The nature of the streambanks and streambottom of Illinois Creek makes a complete census of adult salmon impossible. Cutbanks with overhanging vegetation, undercut banks, logs, and deep pools make it impossible to see all potential areas of the stream that may hold fish, or to safely walk the banks or walk within the stream to count fish. This is particularly true of the area downstream of the main bridge. Some of the coho adults were holding under cutbanks, particularly in the uppermost reaches of Illinois Creek. These factors preclude censusing adult salmon in Illinois Creek. By observing the creek from the same locations year after year, one would be able to make relative estimates of the number present in the creek.

I recounted adult salmon in Illinois Creek on October 3 and 4. On October 3, I observed 7 adult salmon (six within 50 m of either side of the main bridge). The other adult coho was at the upper limit of adult salmon distribution in the creek. I did not examine the creek more than 100 m downstream of the main bridge on October 3. On October 4, I counted 7 adults (3 at the bridge and one each at 90,

130, 310, and 340 m downstream of the main bridge). I did not examine the reach of stream surrounding the plywood bridge.

On October 3, I collected four spawned-out adult coho salmon for possible metals analyses. Three were taken in the area of the bridge and one near the upper limit of adult coho distribution. These fish were kept on ice until placed in the freezer on October 4.

I set 10 minnow buckets upstream of the bridge at the same sample sites we selected in July. All but one trap contained juvenile coho salmon. Most of these fish were in the 65 to 90 mm range, indicating about a 20 to 30 mm gain in length since late July. Juvenile coho salmon also were distributed farther upstream than they were in July. Juvenile coho salmon also appeared to be more uniformly distributed in this reach of stream (although this may be a consequence of not having to view the stream through a headnet).

I obtained latitude and longitudes with a global positioning system (GPS) receiver for all of our July sample sites and for the upstream limits of observed salmon locations. It is quite possible that salmon (adult or juveniles) occur farther upstream than I observed; however, the incised stream channels, undercut banks and overhanging streamside grass make following the channels difficult let alone trying to see fish in them.

Activities at the mine were essentially shut down for the winter. Only seven people were on site when I arrived. The last major task to be completed was the installation and testing of the pump for the water well supplying the new camp. This activity should be completed by the October 6 or 7. A few loads of equipment and supplies also were to be flown in the next two weeks. The ridge road from the new camp site to the mine has been completed except for the installation of a few culverts and some stabilization of a few soft spots in the road. A septic system for the new camp has been installed and ground for the new camp has been cleared.

JFW/jfw

MEMORANDUM

State of Alaska

To: Alvin G. Ott
Regional Supervisor
Habitat and Restoration Division
Department of Fish and Game

Date: October 25, 1996

File No:

Telephone Number: 459-7279

From: Jack Winters *fw*
Habitat Biologist
Habitat and Restoration Division
Department of Fish and Game

Subject: Illinois Creek Mine
Coho Fish Survey
9-10 October 1996

On October 9 and 10, I visited the Illinois Creek Mine to conduct the fall coho salmon survey and to do a general site inspection.

I conducted the adult salmon survey on the 9th. Conditions were bright sun and calm wind at a temperature of +25°F. I recorded 29 live and 3 dead adult coho salmon. Two of the dead salmon had been carried ashore by undetermined carnivores. These 32 adults were found in the same general sampling areas as last year but there were some differences in the recorded distribution. Four adults were observed more than 90 m above the main bridge in 1995. No adults were observed more than 90 m upstream of the main bridge in 1996. Ice up to an inch thick in the ponded area upstream of the beaver dam (about 160 m upstream of the main bridge) prevented examination of this area for adults, part of which was surveyed last year when no beaver were present in upper Illinois Creek.

Many of the adult coho salmon were found on redds near the main bridge as they were last year. Eighteen live and one dead adult coho salmon were within 90 m upstream and downstream of the main bridge this year. Six additional fish were between 180 and 200 m downstream of the main bridge. I surveyed an additional 50 m downstream of last year's main bridge lower limit (about 380 m below the main bridge). Five adult coho salmon were present over several redds in this area.

Last year no adult coho salmon were seen in the sampling reach surrounding the plywood bridge. In 1996, two adult coho salmon carcasses were seen about 100 m upstream of the plywood bridge. Two redds, about 70 and 100 m above the bridge, were noted in the plywood bridge sampling reach.

I placed 8 minnow traps upstream of the main bridge to the beaver dam (including one in the pool immediately behind the dam) and 2 traps at trap sites 1 and 2 downstream of the main bridge. Limited numbers of juvenile coho salmon were present in the traps set at the beaver dam and in the vicinity of the main bridge. About 10 to 15 juvenile coho salmon were in the Warm Spring in a small pool immediately upstream of the flow gauging structure.

On the afternoon of October 10, I toured the mine site facilities with Bob Monok (USMX). We examined the crusher and the stockpile of screened material to be used as the base coat over the liner, the waste rock dump south of the central pit,

the new mine office building, the truck shop, the process building, and the lime kiln. Work was progressing on the interiors and equipment in the process building, the truck shop, and the office building. The lime kiln was heating limestone but still needed additional work on the electronic controls and conveyor feed systems.

Geonet and primary liner was being installed at the heap leach pad on the afternoon of the 10th. The air temperature was +22°F. About 50 percent of the primary liner remains to be installed. The estimated completion date for the liner was somewhere between the 16th and 19th of October. Three visqueen tents, one on the west end and two on the east end of the trough, were being used to thaw accumulations of ice. Brooms and compressed air were being used to clear snow from the secondary liner. A cart attached to a pickup by a rope was being used to haul snow out of the trough. A protective layer had been placed on the secondary liner to prevent damage to it from the cart.

The incinerator was working at the time of my site visit. It obviously has too small of a capacity for the amount of waste the camp is generating. As it is, the incinerator is used only to burn the wet garbage. With the incinerator loaded with wet garbage, complete combustion of material takes more than one hour (the maximum length of time on the burner timer). The incinerator operator indicated a better draft was needed to ensure more rapid and complete combustion. He also indicated wind and wind direction also has a significant (generally adverse) effect on the operation of the incinerator.

Cardboard, paper, and other non-putrescibles are still burned in the burnbox. However, some putrescibles mixed in with mostly paper and styrofoam cups in trash from the sleeping units are burned in the burnbox. The incinerator operator examines the contents in the clear plastic trash bags, and depending on the amount of paper or food waste, selects either the incinerator or the burnbox. Partially burned food remains and juice cans were visible in the burnbox. A red squirrel, two gray jays, and a raven were present at the incinerator site during mid afternoon on the 9th. There had been no sign of bears in the last two weeks.

I informed Bob Monok that waste oil in a 5 gallon bucket on the north side of the man camp pad needed to be picked up before any more of the contents spilled. I also noted a drain barrel partially filled with used oil in the limestone quarry needed to be picked up.

USMX has installed the staff gauges in Illinois Creek, one upstream of the Warm Spring and one just downstream of the main bridge. USMX also installed a flow gauge on the Warm Spring.

JFW/jfw

